CLAIMS

1. (Currently Amended) An integrated circuit (IC) chip, comprising:

a plurality of chip areas on the same chip;

a plurality of temperature sensors, at least one temperature sensor per chip area; and

a comparator for comparing the output of any one of the plurality of temperature sensors with the output of any other of the plurality of temperature sensors, the comparator further employable to generate a signal if the difference between the outputs of the plurality of temperature sensors exceeds a threshold.

2. (Original) The integrated circuit of Claim 1, wherein the temperature sensor measures a temperature to generate a voltage.

3. (Original) The integrated circuit of Claim 1, wherein the temperature sensor measures a temperature to generate a current.

4. (Original) The integrated circuit of Claim 1, wherein the temperature sensor comprises a pn junction.

5. (Original) The integrated circuit of Claim 1, wherein the temperature sensor comprises a thermal resistor.

6. (Original) The integrated circuit of Claim 1, wherein the comparator is coupled to the chip.

7. (Original) The integrated circuit of Claim 1, wherein the comparator compares voltages generated from the plurality of temperature sensors.

8. (Original) The integrated circuit of Claim 1, further comprising a layer of silicon dioxide interposed between the substrate of the integrated circuit and a computational element of the integrated circuit.

9. (Currently Amended) An integrated circuit, comprising:

a plurality of chip areas on the same chip ~~at least two chip areas~~, at least one chip area employed as a simulation area;

a plurality of temperature sensors ~~at least two temperature sensors~~, at least one temperature sensor per chip area; and

a comparator for comparing the output of any one of the plurality of temperature sensors with the temperature sensor in the simulation area.

10. (Original) The integrated circuit of Claim 9, further comprising a layer of silicon dioxide interposed between the substrate of the integrated circuit and a computational element of the integrated circuit.

11. (Currently Amended) The integrated circuit of Claim 9, wherein the temperature sensor measures a temperature to generate a current. ~~The integrated circuit of Claim 9, further~~

~~comprising a third chip area and a third associated temperature sensor, wherein the output of the third associated temperature sensor is employed by the comparator.~~

12. (Original) The integrated circuit of Claim 9, wherein the temperature sensor measures a temperature to generate a voltage.

13. (Original) The integrated circuit of Claim 9, wherein the temperature sensor comprises a pn junction.

14. (Original) The integrated circuit of Claim 9, wherein the temperature sensor comprises a thermal resistor.

15. (Original) The integrated circuit of Claim 9, wherein the comparator is coupled to the chip.